a positive effect on outcome in patients following revascularisation. But we cannot comment on this on the basis of our data. Furthermore, to our knowledge cilostazol is approved only for claudicants, not however for patients with CLI, in Europe. Therefore, we believe our data reflect the local situation.

The three patients with extra-anatomic reconstructions were considered too frail for aortic surgery and therefore received extra-anatomic revascularisations as primary operation. None oft the patients had undergone previous vascular surgery, as we described initial treatment in patients presenting with their first episode of CLI.

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Response to Letter to the Editor Re "What are the Risk Factors for Renal Failure Following Open Elective Abdominal Aortic Aneurysm Repair?"

We would like to thank the authors of the letter for their comments regarding our manuscript.[1] We agree that intraoperative blood loss and subsequent transfusion are likely to be important risk factors for the development of post-operative renal failure following major surgery of all types. The aim of this study was however to identify the pre-operative risk factors associated with post-operative renal failure following open elective abdominal aortic aneurysm (AAA) repair. The ability to identify high-risk patients pre-operatviely is important as renal optimisation strategies, including the avoidance of nephrotoxic agents in the peri-operative period and the use of autotransfusion, can be decided on prior to surgery. At our centre autotransfusion use is routine for open elective AAA repair. It is also being used increasingly throughout the North West of England with cell salvage utilised for 30% of open elective AAA repairs between 2000 and 2005 and for 47% of cases between 2006 and 2010 (OR 2.07, 95%CI 1.75–2.46, $p < 0.001$, χ^2).

We agree with Gokalp and colleagues that it is also important to identify the modifiable peri-operative risk factors that are associated with the development of post-operative renal failure. One of the most significant peri-operative risk factors for renal failure on univariate analysis in our cohort is the return to theatre for bleeding with renal failure occurring in 21.3% of patients requiring re-operation compared to 4.9% of patients who did not require re-operation (OR 5.27, 95%CI 3.43–8.11, $p < 0.001$, χ^2). Further analyses of the peri-operative risk factors that are associated with the development of post-operative renal failure are planned.

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Factors Affecting the Development of Renal Failure after Abdominal Vascular Surgery

We congulatulate the authors for the study about the predisposing rick factors of renal disfunction following elective abdominal aortic aneurysm repair.[1] We believe that the effect of perioperative blood transfusion on postoperative renal failure should be evaluated in this large study group as well, regarding many papers suggesting this result for either cardiac or noncardiac surgery.[2–4] If the relation between blood transfusion and postoperative renal failure can be shown especially for major abdominal vascular surgery, methods like autotransfusion should be considered carefully and at length.

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Muscle Over Mind?

In his recent EJVES publication, Prof. Ross Naylor has provided yet another strong message regarding the unconvincing argumentation favoring CAS on basis of cardiac outcome.[1] Internal audit of our institution's prospective vascular surgery database regarding outcome after carotid intervention (98% symptomatic) has shown a non-significant increase in perioperative Troponin-T release for CEA: 11/199(5.5%) vs. 3/101(3.0%), $p = 0.32$. Over follow-up of 3.7 ± 1.9 years no difference was observed in survival (Fig. 1). Using propensity-adjusted Cox-regression analysis, the hazard ratio for death after CEA was 1.05, 95%CI:0.6–1.8 ($p = 0.86$). Consequently, we cannot recommend CAS on the basis of life expectancy following perioperative cardiac ischemia.

Inversely, data from ICSS sub-studies show a three-fold increase in risk of new silent ischemic brain lesions for patients undergoing CAS, which is associated with deterioration in cognitive function 6 months after treatment.[2,3] Such deterioration was not observed after CEA. The significance of these new brain injuries for long-term survival and quality of life is still unclear, as asymptomatic cerebral embolization and cognitive function were never considered as study endpoints in major RCTs.

In conclusion, the marginal benefit in periprocedural heart ischemia favoring CAS (not observed in ICSS) may be significantly offset by the more frequent occurrence of overt and occult cerebral embolization. Since these new brain lesions reportedly influence cognitive function, shouldn't patients be made aware of this when informed consent is given? In the prospect of equivalent survival expectancy, can doctors decide for muscle over mind?

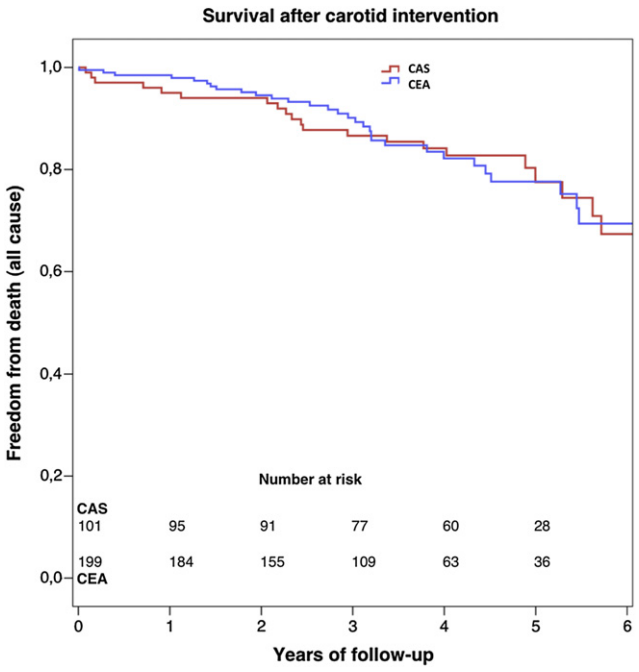

Figure 1. Kaplan–Meier survival analysis according to type of carotid intervention. CAS – Carotid artery stenting; CEA – Carotid endarterectomy.

Conflict of Interest

None.

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